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Field Research Laboratories and Demonstration Centers

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Agricultural Experiment Station

Cooperative Extension Service

Research for a Better Tomorrow

Contemplating Illinois agriculture brings to mind vast stretches of flat, fertile land—growing row upon row of corn and soybeans. These crops dominate the state's agricultural economy, but Illinois agriculture comprises much more.

Today's producers grow grains, vegetables, fruits and even flowers. They raise beef and dairy cattle, swine, sheep and poultry. Their efforts support industries, build communities and maintain the state's worldwide reputation for agricultural and food products.

In part, at least, the Illinois Agricultural Experiment Station is responsible for this rich diversity. For more than a century, the Station has coordinated the research programs of the University of Illinois College of Agriculture. In laboratories at the University and at research and demonstration centers throughout the state, its scientists seek new knowledge to improve crops, animals, food, clothing, housing, family relationships and the general quality of life for Illinois citizens.

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Besides yielding valuable information, all research and demonstration sites serve as teaching and demonstration centers for local citizens. The same experiment may be conducted at several field sites to test the effects of local climate and soil conditions.

Research often is conducted in cooperation with scientists at other universities, with the U.S. Department of Agriculture, with other federal agencies and with the private sector.

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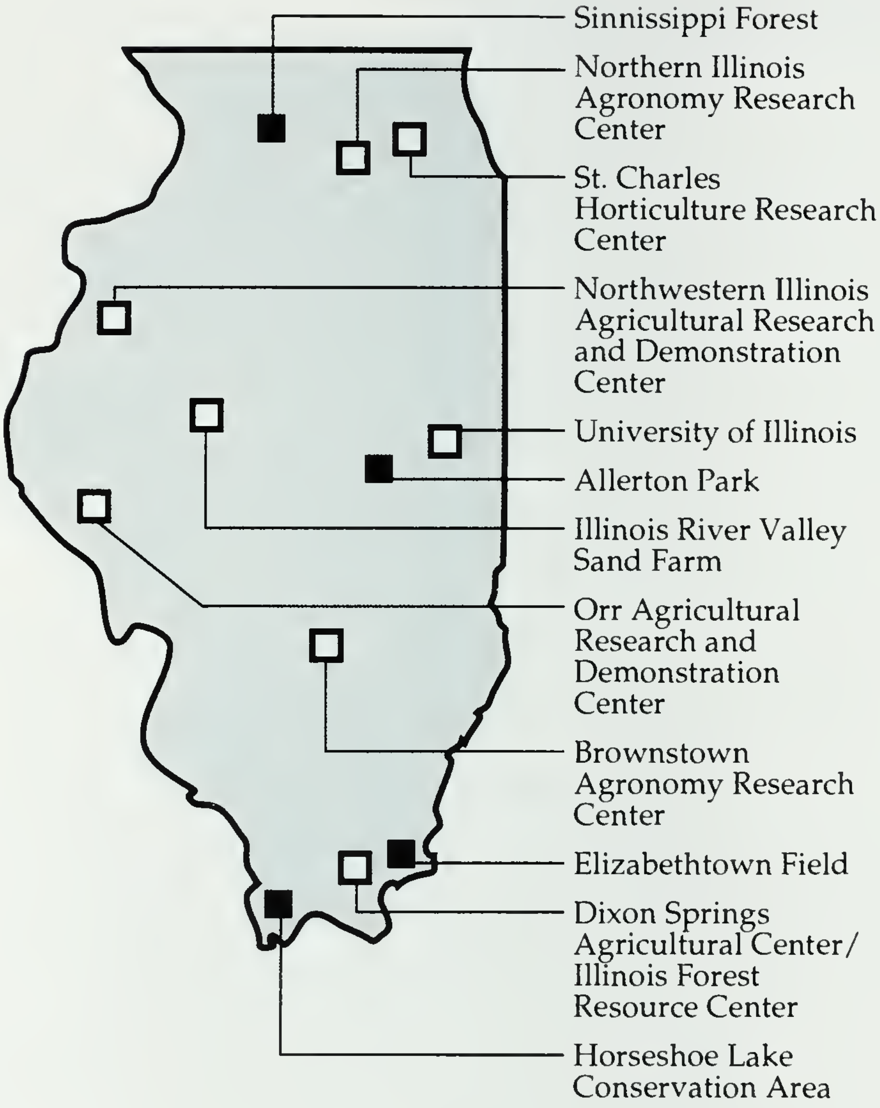
Research Centers


Sinnissippi Forest
Northern Illinois Agronomy Research Center
St. Charles Horticulture Research Center
Northwestern Illinois Agricultural Research and Demonstration Center
University of Illinois
Allerton Park
Illinois River Valley Sand Farm
Orr Agricultural Research and Demonstration Center
Brownstown Agronomy Research Center
Elizabethtown Field
Dixon Springs Agricultural Center/ Illinois Forest Resource Center
Horseshoe Lake Conservation Area

☐ Centers for research in the areas of agronomy, agricultural engineering, agricultural entomology, animal sciences, forestry, horticulture and plant pathology.

■ Forestry research sites.

Linking Laboratories to Farms

From the early days of the Station, its scientists realized that Illinois required a strong statewide research and demonstration system to link the laboratories and classrooms of the Urbana-Champaign campus to producers operating under vastly different conditions throughout the state.

Illinois stretches more than 400 miles from north to south, and nearly 200 miles from east to west at its widest point. It covers nearly 56,500 square miles, or about 36 million acres—28 million of which are used for agriculture.

Soil scientists have identified nearly 500 unique soil series that vary widely in natural productivity and management requirements. These soils range in topography and productivity from the relatively flat fields and highly productive Corn Belt soils characteristic of central Illinois to the steep, eroded fields and ecologically fragile soils found in other parts of the state.

The growing season varies from one end of Illinois to the other, with the southern counties enjoying about a month more frost-free days than those at the northern border. The southern part of the state also annually receives about 12 inches more precipitation.

Quite simply, a crop variety or a management technique that works in one region of Illinois may not work as well or at all in another region. Given these challenges, researchers must test concepts, procedures and products in the field under the various conditions producers face—to maintain the competitive, responsive agricultural industry of Illinois.

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In 1896, the first off-campus research and demonstration facility for this purpose was established near Edgewood. Although that facility is no longer open, other research and demonstration centers dot the state. These strategic sites represent the range of conditions that exist in Illinois. For each facility, a local advisory committee helps determine the direction for research and demonstration, focusing on the problems and concerns that nearby residents experience.

Visitors are welcome anytime at the research and demonstration centers. In addition, field days scheduled during the growing season are opportunities for the public to tour the centers, see firsthand the results of field trials and discuss research with Station scientists.

This brochure presents a brief overview of what visitors might see when they tour the research and demonstration centers of the Illinois Agricultural Experiment Station.

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South Farms—
Champaign County

The South Farms, a 2,200-acre complex just south of the Urbana-Champaign campus, was established in 1904. It brought together a variety of field research that had been scattered throughout the campus. Researchers, however, did not give up all ties to the past. Adjacent to the University's modern underground library, the Morrow Plots are maintained as a reminder of research conducted as early as 1876.

At the South Farms, plant breeding to improve and adapt crop varieties to Illinois growing conditions is a dominant research thrust. Crop and soil management projects and farming systems research deal primarily with increasing production efficiency, environmental quality, disease management, plant physiology, soil chemistry and fertility.

The University also maintains dairy and beef cattle, swine, sheep and horses on the South Farms for animal and veterinary sciences research.

In nearby fields, research is conducted by agricultural engineers, foresters, agricultural entomologists, plant pathologists and horticulturists.

Northern Illinois Center— DeKalb County

The Northern Illinois Agronomy Research Center, established near Shabbona in 1948, is an outdoor laboratory for crop and soil management, plant breeding research, weed science studies and other projects aimed at solving problems that are unique to northern Illinois.

The research and demonstration program has evolved through the years to incorporate new technology and to meet the needs of area farmers, but the primary focus remains on crop variety testing, fertility, soil management, tillage, and weed, insect and disease management.

Northwestern Illinois Center— Warren County

The Northwestern Illinois Agricultural Research and Demonstration Center, established on 160 acres near Monmouth, has some of the most productive soils in the state.

Each year, scientists conduct crop production research related to soil chemistry, fertility and management, variety performance, environmental quality, and weed, insect and disease management.

In addition, nearly every tillage concept of interest to area farmers is incorporated into the research and demonstration program. Researchers design tillage projects to evaluate such factors as interrelationships among tillage implements, stand establishment, weed management, soil erosion and moisture conservation.

Sand Field— Mason County

A 40-acre tract near Kilborne is an ideal site for research into environmental and production problems associated with growing crops on sandy soils. The Illinois River Valley Sand Field, established in 1969 for irrigated research on horticultural crops, now is used primarily for field crop research.

Irrigation and crop production projects center on soil chemistry and fertility, variety testing, irrigation scheduling, crop production, plant pathology, pest management and agricultural engineering.

The sandy soil and availability of irrigation also make the Sand Field uniquely suited for research on chemical movement through soils and other environmental quality issues.

Orr Center—Pike County

The Orr Agricultural Research and Demonstration Center near Perry has grown and changed greatly since it was established in 1978 for crop and soil research for west-central Illinois farmers. The biggest change came in 1988, when the University acquired nearly 200 acres to develop an animal research unit adjacent to the original 278-acre site.

The animal research unit complements the Orr Center's strong program of agronomic research in soil management, crop production, pest management and environmental quality. A primary goal of the animal research component is to conduct innovative research for profitable, sustainable livestock production in western Illinois.

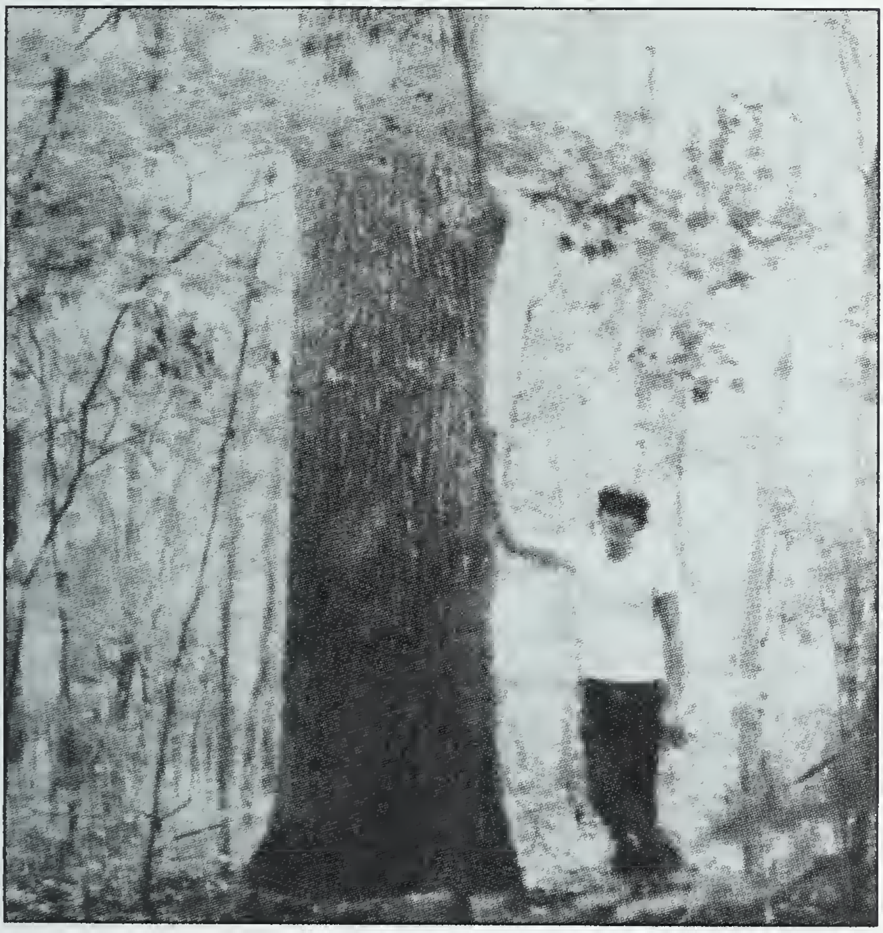
The Orr Center is unique in its focus on future farmers as well as those in business today. Through a cooperative agreement with the John Wood Community College, the Center offers an internship program for students studying agriculture. The JWCC allows researchers to use a multi-purpose building adjacent to the Orr Center.

Brownstown Center— Fayette County

Established in 1937 on 120 acres (with 40 acres added in 1986), the Brownstown Agronomy Research Center has some of the system's longest-running studies.

Each year, researchers investigate aspects of crop production, pest management, soil chemistry and fertility management that might help farmers coax better harvests out of the claypan soils prevalent in the region.

In addition, forested acres at the Brownstown Center are set aside for long-term hardwood management and oak regeneration studies.



Dixon Springs Center— Pope County

One of the most diverse research and demonstration facilities in the system is the Dixon Springs Agricultural Center, established in 1935 on about 5,000 acres of land, a major portion of which is leased from the U.S. Forest Service. Dixon Springs is the largest experiment station of its kind east of the Mississippi and is uniquely suited to large-scale experiments related to commercial agriculture.

The Dixon Springs Center is known throughout the Midwest for pioneering research in tillage, particularly reduced tillage. Crop production research has expanded from an early focus on soil management and conservation to include research on pest management, grain crops, forage production and horticultural crops. Evaluating high-income small-fruit and vegetable crops for commercial production is a goal of horticulturists.

In addition to crops, the Center includes beef cattle, sheep and hogs. Animal scientists and research veterinarians study problems related to production and health of these animals.

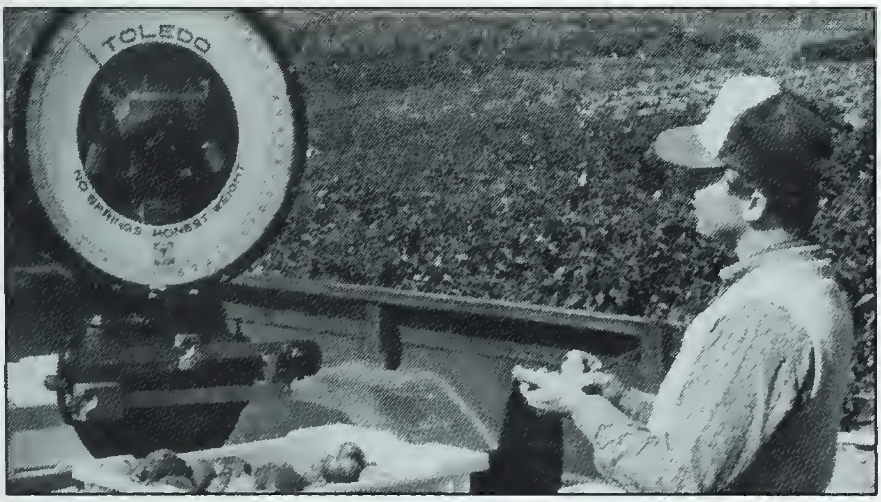
On forested areas of the Center and nearby sites, foresters investigate the potential for agroforestry and biomass energy. Ecology and conservation research, ranging from water quality to wildlife issues, are vital elements of the forestry research program.

St. Charles Center— Kane County

Commercial vegetable growers in northern Illinois can turn to the St. Charles Horticulture Research Center for new ideas and production advice. Established in 1983, the 25-acre facility is near one of the largest fresh market and processing areas in the state.

Researchers evaluate cultural practices, including weed and insect management, and test crop varieties. They often are first in the area to try new, exotic vegetables and to study new concepts in management.

Although research at the St. Charles Center is designed to support commercial producers, urban gardeners are frequent visitors as well. They investigate the fields for ideas to adapt for their backyard gardens and also visit a demonstration garden of herbs, flowers and small vegetables. The garden is maintained by master gardeners, trained volunteers who work with Cooperative Extension Service advisers.



Congress authorized the state agricultural experiment station system with the Hatch Act, passed on March 2, 1887. The act envisioned the establishment of stations at land-grant universities to conduct research beneficial to agriculture and the general public. The Illinois Agricultural Experiment Station was authorized by the State Legislature in 1887 and established by the University of Illinois Board of Trustees in 1888.

For more information about the research program, write to the Director, Illinois Agricultural Experiment Station, 211 Mumford Hall, University of Illinois, 1301 West Gregory Drive, Urbana, IL 61801. The Illinois Agricultural Experiment Station provides equal opportunities in programs.

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